



# **Special Projects Interests & Technology Challenges**

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**Presented By:  
Mrs Marty Evans  
Acting Director  
ESC/ZJ  
781-377-8440**

# Overview

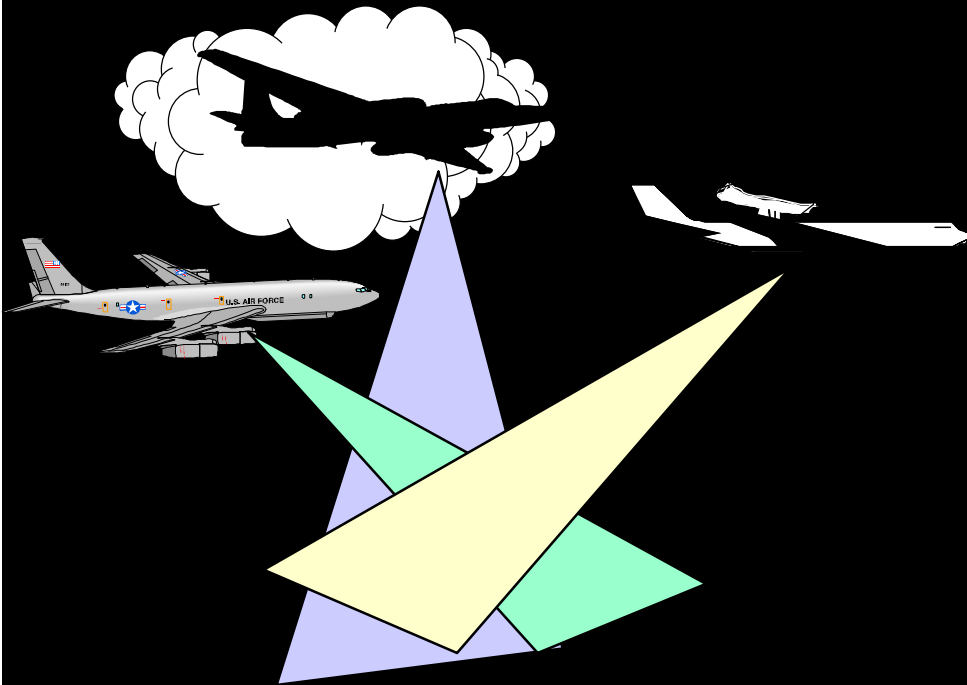
- ◆ **Mission**
- ◆ **Technology Challenges**
  - { **Airborne Surveillance**
  - { **Infrared Countermeasures**
  - { **National Information to the Warfighter**
  - { **Combat Identification**

# Mission

**Develop and implement sensitive capabilities to exploit, advance, and protect command and control systems that**

- Leverage new technologies**
- Integrate with the ESC C2 framework**
- Facilitate dominant maneuver, precision engagement, full dimensional protection, and focused logistics**

# Airborne Surveillance



**Advanced airborne surveillance technologies & concepts for theater air defense**

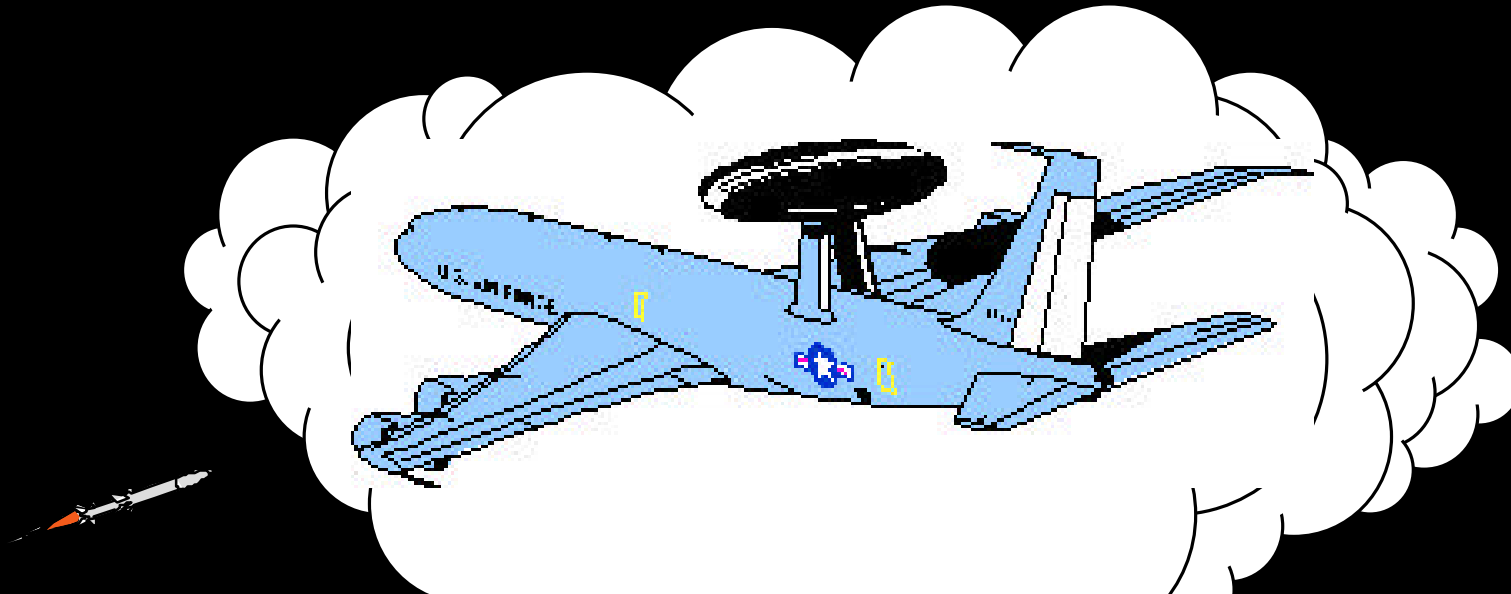
- Tactical ballistic missiles and cruise missiles**
- Mobile launchers**

- Technology challenges**

- Small digital receivers**
- High speed, small volume computing**

- Target classification & identification**
- Multi-sensor fusion**

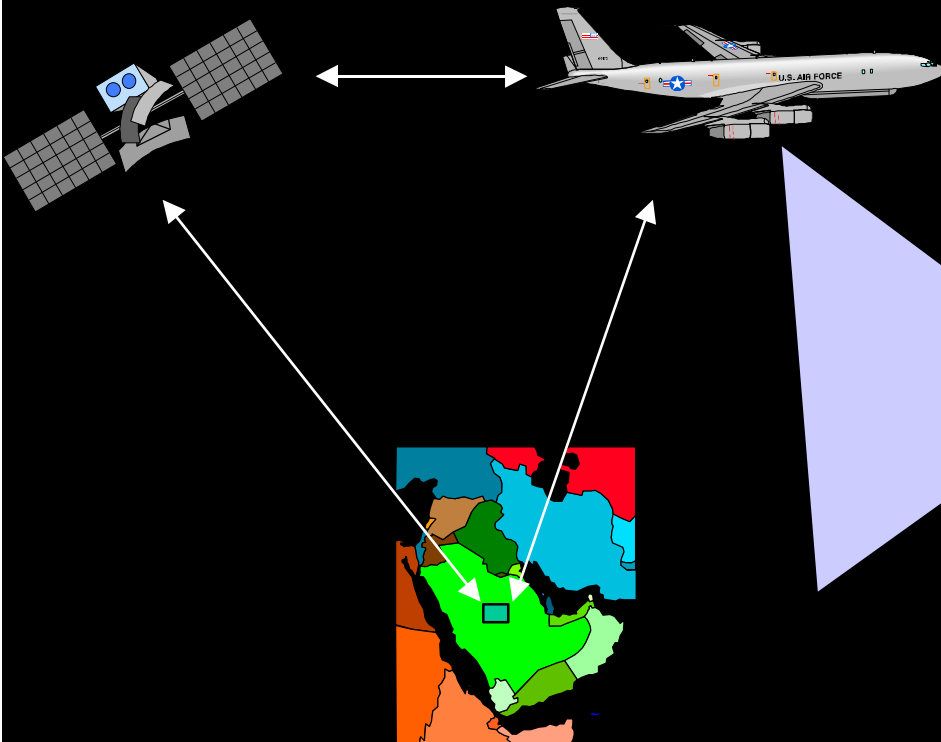
# Infrared Countermeasures



- ◆ Integrated infrared countermeasures (IRCM) solutions for large, high value aircraft
- ◆ Technology challenges
  - ┌ Missile warning systems
  - ┌ Multi-band laser
  - ┌ Pointing & tracking systems

# National System Information to the Warfighter

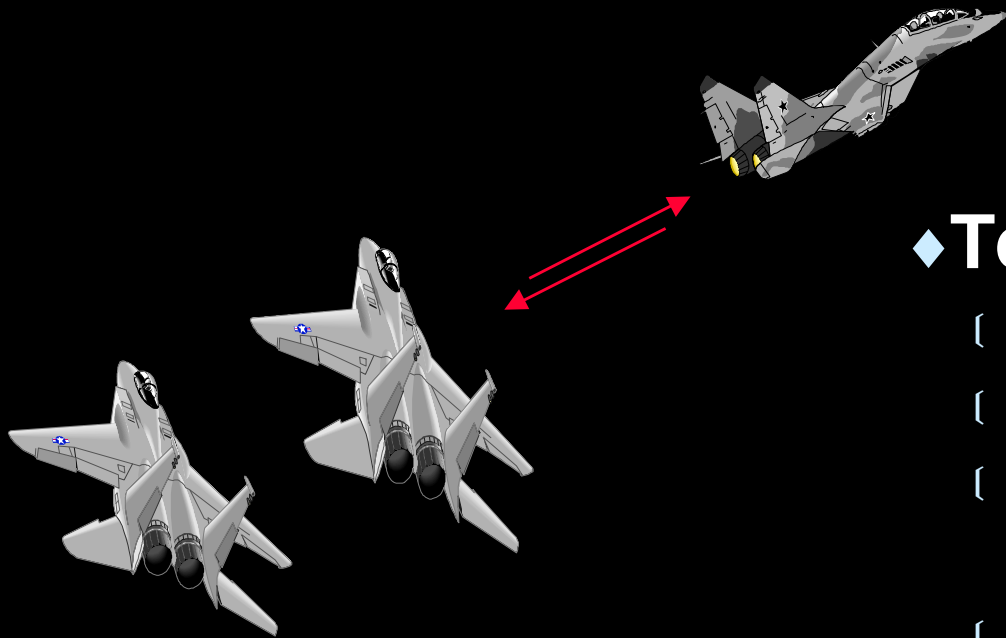
- ◆ High resolution imagery from national assets to theater



- ◆ Technology challenges
  - ┌ High speed, quality comm
  - ┌ Automatic target recognition
  - ┌ Multi-sensor fusion

# Combat Identification

- ◆ Devising unique combat ID tools to maximize the capabilities of US beyond-visual-range weapons



- ◆ Technology challenges
  - ┌ Positive hostile ID
  - ┌ Multi-sensor data fusion
  - ┌ High speed on-board processing
  - ┌ Reduced data latency

# Summary

- ◆ **Requesting industry's help**
  - { **New technologies, ideas, and concepts**
  - { **Relevant IRAD activities**

**Mrs Marty Evans**  
**11 Barksdale St**  
**Hanscom AFB, MA 01731-1634**

**Telephone: 781-377-8440**  
**Unclassified FAX: 781-377-6867**  
**Classified FAX: 781-377-2966**